

# COMMERCIAL PAEONY PRODUCTION IN THE FALKLANDS

## Introduction

The enclosed information is to assist an individual in preparing a detailed business plan for paeony production in the Falkland Islands tailored to meet their own circumstances. The financial information contained here should be supplemented with technical information on Paeony growing, such as provided by UKFIT (Wool Press June, 2006) and in other published horticultural manuals.

## Background and opportunity

- Through its close links with the University and commercial agriculture/horticulture sector in the Punta Arenas area, UKFIT was alerted to the potential of Paeony production as a commercially viable venture for the Falklands.
- At that time (2003) there was only one producer in Punta Arenas and they were supplying an unfilled market by exporting to North America. That producer expresses a willingness to co-operate with the Falklands if the potential for commercial production could be established.
- UKFIT carried out a series of trials in the Falklands based on selected varieties (in 2004 and 2005).
- These showed that Paeonies could be grown in the Falklands as well as if not better than in Punta Arenas.
- Information on the technology and growing requirements have been determined and made publicly available.
- There is a definite market through Punta Arenas to the exporting agent in Santiago though there is no reason why independent production might not come directly from the Falklands given the already close trading links.

## Costs and Revenues

The trust feels that growing Paeonies in the Falklands, initially at least with a view to supplying a partner in Punta Arenas offers a real business opportunity.

It is envisaged that whoever might take up this opportunity might (a) have a reasonable level of knowledge of growing plants and of the basic principles of fertilisation, propagation etc. (these are not difficult for paeonies and well documented). (b) Have access to or own some of the basic capital infrastructure necessary to cultivate and operate a small production unit.

Obviously the above two input variables and the time they can devote to the business will depend very much on the circumstances of the individual applicant and possibilities associated with any one individual.

The Trust therefore feels that all it can do is present figures for growing and selling paeonies based on those from the (successful) commercial unit at Punta Arenas and let individuals who might make a business case to FIDC add their own input/set-up costs based on their own personal conditions.

It is assumed that the basic requirements are available i.e. some knowledge and expertise in horticulture; a relatively small (less than 1 acre can produce 50, 000 + stems/year) area of land; access to basic cultivation and husbandry equipment (the sophistication of these will depend on the scale of the operation). As paeonies are a perennial crop, once initial ground preparation is complete there is no further need for mechanical cultivation. A simple irrigation system may need to be installed and basic hand fertiliser/knapsack sprayer available. Given land availability initial set-up costs (for 0.4 ha) might be in the order of (Falkland Islands prices):

Fencing (inc. erection costs)	3500
Cultivation	200
Sower	50
Knapsack sprayer	80
Fertilisers	40
Water system	150
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	£4020

This area of production is chosen as it equates with the area under cultivation in Punta Arenas. In reality anyone starting up might opt for a smaller operation initially.

## COSTS

### Capital Costs

- The Punta Arenas operation involved complete purchase of the land (£12, 000 – close to the city), construction of a house and fencing (£27, 390) access roadway (£15, 800), other( £6,000), giving a total investment of £61,200 (at Punta Arenas' costs). It would be wholly inappropriate to use these costs in the Falklands and anyone starting up would be unlikely to require this investment or infrastructural costs would be very different.
- After planting. First flower sales occur in year 2 and rhizome sales in year 3 (plants are divided and there is a market for rhizomes).

### Operational Costs

**Administration** (A groundsman/watchman is employed in Punta Arenas – not necessary in the Falklands?) @ £3590 in 2004/5 (Punta Arenas costs)

<b>Planting</b>	(Yr 1)	£1487 <sup>1</sup>
<b>Fertiliser/water</b> (inc. labour)	Yr 2	£300 <sup>2</sup>
	Yr 3	£2329 <sup>3</sup>
	Yr 4	£1991 <sup>4</sup>
<b>Harvesting</b> (employing casual labour <sup>6</sup> )	Yr 3	£2942 <sup>5</sup>
	Yr 4	£5452

<sup>1</sup>Approx 20% of this cost is for labour at Punta Arenas prices (est. 10 days).

<sup>2</sup>Labour costs are minimal – 3 fertiliser applications at 2h. each per year. Water dependent on availability.

<sup>3</sup>Automatic piped water system installed

<sup>4</sup>Completion of automatic system carried over to yr.4

<sup>5</sup>May not be need for the Falklands.

<sup>6</sup>Harvesting includes packing and storage and is estimated to take approx. 150 hours in total over the harvest period (Jan/Feb). Indications are this may be earlier in the Falklands and spread into December. This would potentially increase the value of the crop.

Assuming no ‘administration’ costs the **Operational Cost Profile** of the business in the Falklands for 0.4 ha would be as follows.

#### YEAR 1

<b>Capital Costs</b>	£
Initial set-up	4020
Individual Circumstances	? x
<b>Operational Costs</b>	
Planting	1487

#### YEAR 2

Fertiliser etc.	300
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#### YEAR 3

Fertiliser/water	2329
Harvesting/multiplication	2942

#### YEAR 4

Fertiliser/water etc	1991
Harvesting	5452

By year 4 the operations is in full production producing 37, 020 stems (This year production increased to 46, 800 stems in Punta Arenas but no costs are available yet).

### Revenue (£)

YEAR 1		NIL
YEAR 2	Stems	6965
YEAR 3	Rhizomes	3610*
	Stems	23040
YEAR 4	Stems	37020
	Rhizomes	200*

\*There is an initial separation of rhizome clumps before the final crop density is established. The surplus material produced at this separation has a high resale value as propagation material for other paeony producers. Thereafter there can be a small amount of extra rhizomes removed for sale each year.

Hence as a broad summary, the project will be in profit by year 3, with total balance over 4 years as follows.

<b>Initial Costs:</b>	4,020 (+ £ x)
<b>Operating Costs (over 4yrs)</b>	14, 501
<b>Revenue (4yrs)</b>	70, 835

### QUALIFYING NOTES

1. These figures do not include a cost for labour or land rental as these will vary according to circumstance.
2. The cost of cold storage in the Falklands and freight to Santiago is not included. This will not be high as return freight costs from the Falklands are low (stems are boxed in special lightweight packaging for onward shipment through to destination. These contain 10-20 stems and are very light (approx. 0.004cu m volume each).
3. A contractual/fee arrangement between the local producer and the Punta Arenas grower is not included. These would depend a lot on the scale of the local operation and regularity of supply.

Once the operation has been set-up ongoing revenue costs should increase (e.g. this year the Punta Arenas operation sold 46, 800 stems) along with the opportunity to explore new markets



Paeony crop (second year) planted at 20,000 plants per hectare, using irrigation and windbreaks in southern Chile, Punta Arenas.

Given the above 3 variables and the initial set-up costs (which would depend very much on the individual applicant), UKFIT feels that there is good potential for a few growers to profitably produce Paeonies in the Falklands.

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